

1995 Gordon Research Conference on

Molecular Membrane Biology

Final Progress Report
ONR Grant No. N00014-95-1-0856

The Gordon Conference on "Molecular Membrane Biology" was held July 9 to 15, 1995 in Andover, New Hampshire at Proctor Academy. One hundred and thirty six scientists attended, including the major figures in the cell biology and biophysics of protein localization, vesicle sorting, and membrane protein biogenesis. Represented among the attendees were established scientists as well as post-doctoral fellows (15%) and students (10%). Sixty percent of the participants were from the U.S. and 40% foreign.

The quality of the presentations was exceptional. The Chair (Lila Gierasch) and Vice-Chair (Suzanne Pfeffer) chose to mix longer presentations from more senior researchers with shorter talks from younger scientists. This format was well-received, and the attendees felt that one consequence was fresher data with fewer talks focusing on work that had been published. There was extensive discussion after each talk, and the usual more relaxed and protracted discussions stimulated by the Gordon Conference setting in the afternoons and evenings. All but 18 of the attendees presented their work either orally or in a poster.

Topics covered in the meeting included: bacterial and membrane protein biogenesis; membrane protein structure; maintenance of organelle identity; protein translocation and folding in the endoplasmic reticulum; inter-organellar transport; lipids, cholesterol, GPI links, and caveolae; anterograde and retrograde trafficking; endocytosis and exocytosis; and membrane fusion. One of the great strengths of this Gordon Conference is the breadth of expertise encompassed by its participants and represented in the presentations. Methods ranging from x-ray crystallography, fluorescent localization of proteins, in vitro reconstitution of vesicular sorting, electrophysiological measurements, and yeast genetics were all discussed with respect to their applications to the problems of how membranes are constructed, correctly sorted, and maintained in the cell. Highly significant biomedical problems are intimately related to these issues: mechanism of virus entry and reproduction in the cell, nerve signal transmission, regulation of cell growth, and assembly and secretion of molecules in the immune response. Each of these was discussed in one or more sessions.

The self-evaluation of this meeting placed it well above average for Gordon Conferences. The quality of science presented was rated 25.3 out of a possible 30 points (with the average score of all Gordon Conferences 22); the quality of discussion was rated 21.4 out of 30, significantly higher than the 1993 meeting (19.9) and the Gordon Conference average (17); and the management (16.7 out of 20) and atmosphere (15.9 out of 20) also were strong. The only suggestion which will be addressed in the next meeting was to insure that speakers do not go over their allotted time.

19960613 064

REPORT DOCUMENTATION PAGE

Form Approved
OMB NO. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comment regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503

1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE		3. REPORT TYPE AND DATES COVERED	
4. TITLE AND SUBTITLE 1995 Summer: Gordon Research Conferences (1995 Molecular Membrane Biology Conference)				5. FUNDING NUMBERS	
6. AUTHOR(S) Lila M. Gierasch					
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Department of Chemistry University of Massachusetts, Box 34510 Lederle Graduate Research Tower A Amherst, MA 01003-4510				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) Office of Naval Research 800 North Quincy Street Arlington, Virginia 22217-5000				10. SPONSORING / MONITORING AGENCY REPORT NUMBER N00014-95-1-0856	
11. SUPPLEMENTARY NOTES					
12a. DISTRIBUTION / AVAILABILITY STATEMENT <div style="border: 1px solid black; padding: 5px; text-align: center;">DISTRIBUTION STATEMENT A Approved for public release Distribution Unlimited</div>				12 b. DISTRIBUTION CODE	
13. ABSTRACT (Maximum 200 words) SEE NEXT PAGE					
14. SUBJECT TERMS				15. NUMBER OF PAGES	
				16. PRICE CODE	
17. SECURITY CLASSIFICATION OR REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT		

NSN 7540-01-280-5500

Standard Form 298 (Rev. 2-86)
Prescribed by ANSI Std. Z39-18
296-102

DTIC QUALITY INSPECTED 1